

mitsubishi electronics

HVAC Advanced Products Division
SPLIT-TYPE, HEAT PUMPS

036-21544-001 Rev. B (1103)

TECHNICAL MANUAL

PUGH OUTDOOR UNIT

MODELS
PUGH18AYB
PUGH24AYB
PUGH30AYB
PUGH36AYB
PUGH42AYB

Table 1:

<u>APPLIES TO:</u>	<u>VOLTAGE</u>	<u>PHASE</u>	<u>SUFFIX</u>
	208/230 VAC	1 PH	AYB



This product was manufactured in a plant whose quality system is certified/registered as being in conformity with ISO 9001.



Certification applies only when the complete system is listed with ARI.

1 DESCRIPTION AND FEATURES

DESCRIPTION AND FEATURES	2	OPERATING RANGE	26
SPECIFICATIONS	3	REFRIGERANT CHARGE (R-22 0z.) ADJUSTMENT FOR OPTIMUM PERFORMANCE.....	27
STANDARD OPERATING DATA	4 - 6	CAPACITY CORRECTION FACTORS FOR VARIOUS PIPE LENGTHS	28
PERFORMANCE DATA - OPERATING PRESSURES - COOLING	7 - 19	MICROPROCESSOR CONTROL	29 - 30
PERFORMANCE DATA - OPERATING PRESSURES - HEATING.....	20 - 22	ELECTRICAL	31
DIMENSIONS AND CLEARANCES	23	REFRIGERANT SYSTEM	32
SYSTEM CHARGE	24	PARTS BREAKDOWN	33 - 35
OPERATING PRESSURES / SUPERHEAT	24 - 25	NOTES	36

The PUGH condensing units are Heat Pump models that are designed specifically for use with Mitsubishi Electronics PKH, PCH, and PLH MR. SLIM indoor units of matching nominal capacities. Models from 1.5 through 3.5 tons are available.

- **QUALITY CONDENSER COILS** - The coil is constructed of enhanced copper tube and aluminum fins.
- **COIL PROTECTION** - Coils are protected from damage by a polymer mesh applied between the coil face and the PVC coated steel coil guard.
- **PROTECTED COMPRESSOR** - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high and low pressure switches and a temperature sensor that protects the compressor if undesirable operating conditions occur. A liquid line filter-drier further protects the compressor.
- **DURABLE FINISH** - The cabinet is made of pre-painted steel. The pre-treated flat galvanized steel provides a better paint to steel bond, which resists corrosion and rust creep. Special primer formulas and matted desert sand finish insure less fading when exposed to sunlight.
- **LOWER INSTALLED COST** - Installation time and costs are reduced by easy power and control wiring connections. Discharge line heat exchanger knock-outs are provided, if required. The unit contains enough refrigerant for matching indoor units and 25 feet of interconnecting piping. The small base dimension means less space is required on the ground or roof.
- **TOP DISCHARGE** - The warm air from the top mounted fan is blown up away from the structure and any landscaping. This allows compact location on multi-unit applications.
- **ADVANCED CONTROL BOARD** - Each unit is equipped with an advanced electronic control board. This board controls the function of the outdoor unit and improves the operation and protection of the unit. The control board also provides operational and diagnostic information to the service technician through multiple LED's.
- **LOW OPERATING SOUND LEVEL** - The upward air flow carries the normal operating noise up away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds.
- **LOW MAINTENANCE** - Long life permanently lubricated motor-bearings need no annual servicing.
- **EASY SERVICE ACCESS** - Fully exposed refrigerant connections, a single panel covering the electrical controls and a plug in the control box connecting the condenser fan, make for easy servicing of the unit.
- **SECURED SERVICE VALVES** - Secured reusable service valves are provided on both the liquid and vapor connections for ease of evacuating and charging.
- **ETL LISTED** - Approved for outdoor application.
- Certified in accordance with the Unitary Small Equipment certification program, which is based on ARI Standard 210/240.

2 SPECIFICATIONS

PCGH SERIES - HEAT PUMP SYSTEMS

SYSTEM	INDOOR	OUTDOOR	BTU/H COOL*	BTUH/H HEAT (AUX)*	SEER	EER*	HSPF	COP*
PCGH24GK	PCH24GK	PUGH24AYB	25000	24200	10.00	9.00	7.35	3.10
PCGH30GK	PCH30GK	PUGH30AYB	30200	31000	10.00	9.35	7.6	3.33
PCGH36GK	PCH36GK	PUGH36AYB	35800	36200	10.50	9.65	7.4	3.24
PCGH42GK	PCH42GK	PUGH42AYB	40500	45000	11.50	10.25	7.8	3.35

* Conditions taken at ARI A (95° F outdoor / 80° F DB, 67° F WB indoor) for cooling and ARI high temperature heating test (47° F outdoor / 70° F DB, 60° F WB indoor) for heating. Based on ARI operating conditions. Specifications subject to change without notice.

PKGK SERIES - HEAT PUMP SYSTEMS

SYSTEM	INDOOR	OUTDOOR	BTU/H COOL*	BTUH/H HEAT (AUX)*	SEER	EER*	HSPF	COP*
PKGK18FK3	PKH18FK3	PUGH18AYB	17900	17400	11.50	10.00	7.5	3.38
PKGK24FK3	PKH24FK3	PUGH24AYB	23400	23000	10.50	9.20	7.45	3.10
PKGK30FK3	PKH30FK3	PUGH30AYB	29600	30000	11.00	9.85	7.8	3.44
PKGK36FK3	PKH36FK3	PUGH36AYB	34200	35000	10.70	9.85	7.4	3.22

* Conditions taken at ARI A (95° F outdoor / 80° F DB, 67° F WB indoor) for cooling and ARI high temperature heating test (47° F outdoor / 70° F DB, 60° F WB indoor) for heating. Based on ARI operating conditions. Specifications subject to change without notice.

PLGH SERIES - HEAT PUMP SYSTEMS

SYSTEM	INDOOR	OUTDOOR	BTU/H COOL*	BTUH/H HEAT (AUX)*	SEER	EER*	HSPF	COP*
PLGH18AK	PLH18AK3	PUGH18AYB	19200	19200	10.75	10.00	7.6	3.64
PLGH24AK	PLH24AK3	PUGH24AYB	24400	24200	10.00	8.90	7.25	3.04
PLGH30AK	PLH30AK3	PUGH30AYB	27800	30200	10.00	8.85	7.4	3.18
PLGH36AK	PLH36AK3	PUGH36AYB	35200	36400	10.00	9.45	7.35	3.22
PLGH42AK	PLH42AK3	PUGH42AYB	40000	45000	11.00	9.85	7.5	3.22

* Conditions taken at ARI A (95° F outdoor / 80° F DB, 67° F WB indoor) for cooling and ARI high temperature heating test (47° F outdoor / 70° F DB, 60° F WB indoor) for heating. Based on ARI operating conditions. Specifications subject to change without notice.

ELECTRICAL SPECIFICATIONS - HEAT PUMP UNITS

MODEL		PUGH18AYB	PUGH24AYB	PUGH30AYB	PUGH36AYB	PUGH42AYB
Compressor	Locked Rotor Amps1	48	68	82	86	109
	Full Load Amps1	9.0	12.8	14.7	16.6	18.3
Outdoor Fan	Full Load Amps1	0.5	0.5	1.4	1.3	1.3
Unit Total	Full Load Amps1	9.5	13.3	16.1	17.9	19.6
Max Fuse Size (Amps)		20	25	30	35	40
Min. Circuit Ampacity		11.8	12.8	19.8	22.1	24.2

3 STANDARD OPERATING DATA

PCH INDOOR UNITS WITH PUGH OUTDOOR UNITS

MODELS			PCH24GK		PCH30GK		PCH36GK		PCH42GK		
Item	Unit	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating		
Electrical Circuit	Voltage	V	208/230		208/230		208/230		208/230		
	Frequency	Hz	60	60	60	60	60	60	60	60	
	Total Input	kW	2.78	2.29	3.24	2.73	3.71	3.28	3.95	3.94	
	Indoor Fan Current	A	0.7	0.7	0.7	0.7	1.3	1.3	1.3	1.3	
	Booster Heater Current	A	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	
	Outdoor Fan Current (FLA)	A	0.5	0.5	1.4	1.4	1.3	1.3	1.3	1.3	
	Compressor Current (230v)	A	7.6	6.2	10.6	8.9	12.5	10.1	17.3	16.3	
Refrigerant Circuit	Condensing Pressure	PSIG	277	208	279	228	267	245	268	250	
	Suction Pressure	PSIG	79	55	82	54	79	57	69	54	
	Discharge Temperature	°F	183	182	182	152	184	140	171	153	
	Condensing Temperature	°F	111	83	111	77	107	78	107	93	
	Suction Temperature	°F	65	45	70	43	68	32	49	32	
	Compressor Shell Bottom Temperature	°F	103	137	148	97	122	74	122	74	
	Refrigerant Pipe Length	FT.	25	25	25	25	25	25	25	25	
	Refrigerant Charge	-	6 lbs 3 oz		5 lbs 2 oz		6 lbs 5 oz		7 lbs 13 oz		
Indoor Side	Intake Air Temperature	DB	°F	80	70	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60	67	60
	Discharge Air Temperature	DB	°F	59	98	52	95	60	95	57	105
		WB	°F	58	--	59	--	58	--	56	--
	Fan Speed	RPM.	1470		1470		1480		1480		
	Airflow (High)	CFM	810		1130		1130		1130		
Outdoor Side	Intake Air Temperature	DB	°F	95	47	95	47	95	47	95	47
		WB	°F	--	43	--	43	--	43	--	43
	Fan Speed	RPM.	1050		1100		850		1050		
	Airflow (High)	CFM	1950		2650		3250		640		
Capacity	BTU/H	25000	24200	30200	31000	35800	36200	40500	45000		
SHF	--	0.74	--	0.72	--	0.68	--	0.77	--		

3

STANDARD OPERATING DATA

PKH INDOOR UNITS WITH PUGH OUTDOOR UNITS

MODELS			PKH18FK		PKH24FK		PKH30FK		PKH36FK		
Item	Unit		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
Electrical Circuit	Voltage	V	208/230		208/230		208/230		208/230		
	Frequency	Hz	60	60	60	60	60	60	60	60	
	Total Input	kW	1.79	1.51	2.54	2.18	3.01	2.56	3.47	3.19	
	Indoor Fan Current	A	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Booster Heater Current	A	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	
	Outdoor Fan Current (FLA)	A	0.5	0.5	0.5	0.5	1.4	1.4	1.3	1.3	
	Compressor Current (230v)	A	7.6	6.2	10.6	8.9	12.5	10.1	17.3	16.3	
Refrigerant Circuit	Condensing Pressure	PSIG	275	207	274	222	277	234	265	258	
	Suction Pressure	PSIG	81	55	73	56	79	54	74	58	
	Discharge Temperature	°F	174	138	187	191	185	157	187	149	
	Condensing Temperature	°F	109	51	110	87	110	79	106	80	
	Suction Temperature	°F	68	40	62	46	68	43	65	33	
	Compressor Shell Bottom Temperature	°F	146	103	103	137	148	97	122	74	
	Refrigerant Pipe Length	FT.	25	25	25	25	25	25	25	25	
	Refrigerant Charge	-	3 lbs 8 oz		5 lbs 11 oz		4 lbs 15 oz		5 lbs 5 oz		
Indoor Side	Intake Air Temperature	DB	°F	80	70	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60	67	60
	Discharge Air Temperature	DB	°F	61	95	58	103	49	100	57	106
		WB	°F	59	--	56	--	57	--	55	--
	Fan Speed	RPM.	1490		1490		1490		1490		
	Airflow (High)	CFM	640		640		910		885		
Outdoor Side	Intake Air Temperature	DB	°F	95	47	95	47	95	47	95	47
		WB	°F	--	43	--	43	--	43	--	43
	Fan Speed	RPM.	1050		1050		1100		850		
	Airflow (High)	CFM	1750		1950		2650		3250		
Capacity	BTU/H	17900	17400	23400	23000	29600	30000	34200	35000		
SHF	--	0.77	--	0.68	--	0.72	--	0.68	--		

3 STANDARD OPERATING DATA

PLH INDOOR UNITS WITH PUGH OUTDOOR UNITS

MODELS			PLH18GK		PLH24GK		PLH30GK		PLH36GK		PLH42GK		
Item	Unit		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
Electrical Circuit	Voltage	V	208/230		208/230		208/230		208/230		208/230		
	Frequency	Hz	60	60	60	60	60	60	60	60	60	60	
	Total Input	kW	1.92	1.55	2.74	2.33	3.14	2.79	3.57	3.32	4.06	4.10	
	Indoor Fan Current	A	0.6	0.6	0.6	0.5	1.0	1.0	1.0	1.0	1.2	1.2	
	Booster Heater Current	A	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	--	7.6/8.4	
	Outdoor Fan Current (FLA)	A	0.5	0.5	0.5	0.5	1.4	1.4	1.3	1.3	1.3	1.3	
	Compressor Current (230v)	A	7.6	6.2	10.6	8.9	12.5	10.1	17.3	16.3	17.3	16.3	
Refrigerant Circuit	Condensing Pressure	PSIG	280	163	276	212	275	245	267	242	267	255	
	Suction Pressure	PSIG	87	53	78	55	76	55	78	57	67	54	
	Discharge Temperature	°F	171	122	184	183	185	161	185	139	172	157	
	Condensing Temperature	°F	110	48	111	84	110	82	106	77	107	95	
	Suction Temperature	°F	70	38	64	46	67	43	67	32	49	33	
	Compressor Shell Bottom Temperature	°F	146	103	103	137	148	97	122	74	122	74	
	Refrigerant Pipe Length	FT.	25	25	25	25	25	25	25	25	25	25	
	Refrigerant Charge	-	4 lbs 0 oz		6 lbs 4 oz		4 lbs 15 oz		6 lbs 0 oz		7 lbs 5 oz		
Indoor Side	Intake Air Temperature	DB	°F	80	70	80	70	80	70	80	70	80	70
		WB	°F	67	60	67	60	67	60	67	60	67	60
	Discharge Air Temperature	DB	°F	60	95	62	94	52	97	59	103	56	110
		WB	°F	58	--	59	--	59	--	57	--	55	--
	Fan Speed	RPM.	1490		1490		1490		1490		1480		
	Airflow (High)	CFM	670		950		1020		1020		28400		
Outdoor Side	Intake Air Temperature	DB	°F	95	47	95	47	95	47	95	47	95	47
		WB	°F	--	43	--	43	--	43	--	43	--	43
	Fan Speed	RPM.	1050		1050		1100		850		1050		
	Airflow (High)	CFM	1750		1950		2650		3125		3250		
Capacity	BTU/H	19200	19200	24400	24200	27800	30200	35200	36400	40000	45000		
SHF	--	0.78	--	0.79	--	0.76	--	0.72	--	0.66	--		

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING**PCH24GK+PUGH24 (Indoor Air = 810 CFM)**

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	26,000	10.68	2,434	15,187	19,155	22,699	26,243	30,211	69	218
65	27,480	11.07	2,481	13,761	17,729	21,303	24,878	28,846	72	224
67	28,959	11.47	2,526	12,335	16,302	19,908	23,513	27,481	75	230
69	30,439	11.86	2,567	10,909	14,876	18,512	22,148	26,116	78	236
71	31,919	12.25	2,606	9,483	13,450	17,117	20,783	24,750	81	242

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	18,813	9.84	1,911	14,298	18,265	21,615	24,965	28,933	71	244
65	21,532	10.07	2,138	12,886	16,853	20,438	23,711	27,679	74	250
67	26,980	10.17	2,652	11,473	15,441	19,260	22,457	26,424	77	257
69	28,335	10.48	2,703	10,061	14,029	17,771	21,203	25,170	80	263
71	29,691	10.79	2,752	8,649	12,617	16,283	19,948	23,916	83	270

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	11,625	8.37	1,388	13,408	17,376	20,531	23,687	27,655	73	270
65	15,585	8.69	1,794	12,010	15,978	19,572	22,544	26,511	76	276
67	25,000	9.00	2,778	10,612	14,580	18,612	21,401	25,368	79	283
69	26,232	9.24	2,839	9,214	13,181	17,030	20,257	24,225	83	290
71	27,464	9.48	2,897	7,816	11,783	15,449	19,114	23,081	86	297

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	15,094	7.01	2,154	12,560	16,528	19,487	22,446	26,413	76	301
65	17,660	7.37	2,397	11,165	15,132	18,418	21,392	25,360	79	307
67	22,954	7.84	2,926	9,769	13,737	17,349	20,338	24,306	82	314
69	24,155	8.07	2,992	8,374	12,342	15,969	19,285	23,252	85	321
71	25,357	8.30	3,055	6,979	10,946	14,589	18,231	22,199	88	327

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	18,563	6.36	2,919	11,712	15,680	18,442	21,204	25,172	78	332
65	19,735	6.58	3,000	10,320	14,287	17,264	20,240	24,208	81	338
67	20,907	6.80	3,075	8,927	12,895	16,085	19,276	23,244	84	345
69	22,079	7.02	3,146	7,535	11,502	14,907	18,313	22,280	87	351
71	23,251	7.24	3,212	6,142	10,110	13,729	17,349	21,316	90	357

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PCH30GK+PUGH30 (Indoor Air = 1130 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	32,095	10.72	2,993	19,311	23,084	28,530	33,975	37,749	62	206
65	32,899	10.81	3,042	17,296	21,070	26,189	31,309	35,083	63	207
67	33,704	10.91	3,090	15,281	19,055	23,849	28,643	32,417	65	208
69	34,508	11.00	3,137	13,266	17,040	21,508	25,977	29,751	66	209
71	35,313	11.09	3,184	11,251	15,025	19,168	23,311	27,085	67	210

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	31,144	9.71	3,209	18,942	22,716	27,526	32,336	36,110	67	238
65	32,066	9.89	3,242	17,040	20,814	25,653	30,103	33,877	70	242
67	31,952	10.10	3,163	15,139	18,913	23,780	27,870	31,644	73	246
69	33,391	10.17	3,284	13,237	17,011	21,518	25,636	29,410	75	246
71	34,830	10.23	3,403	11,335	15,109	19,256	23,403	27,177	76	247

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	30,194	8.82	3,424	18,574	22,348	26,522	30,697	34,471	72	270
65	31,233	9.07	3,442	16,785	20,559	25,117	28,896	32,670	77	277
67	30,200	9.33	3,237	14,997	18,771	23,712	27,096	30,870	82	284
69	32,274	9.41	3,431	13,208	16,982	21,528	25,296	29,070	84	283
71	34,348	9.48	3,623	11,420	15,194	19,344	23,495	27,269	86	283

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	27,617	7.73	3,574	17,490	21,264	25,297	29,331	33,105	75	304
65	28,914	7.96	3,632	15,733	19,507	23,799	27,701	31,475	79	309
67	29,174	8.16	3,575	13,977	17,751	22,301	26,072	29,846	82	314
69	30,989	8.34	3,715	12,221	15,995	20,414	24,443	28,217	85	315
71	32,803	8.52	3,851	10,465	14,239	18,526	22,814	26,588	87	316

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	25,040	6.73	3,723	16,405	20,179	24,072	27,964	31,738	78	338
65	26,595	6.96	3,821	14,681	18,455	22,481	26,506	30,280	80	341
67	28,149	7.19	3,913	12,957	16,731	20,890	25,048	28,822	83	344
69	29,703	7.43	3,999	11,233	15,007	19,299	23,590	27,364	85	347
71	31,257	7.66	4,079	9,510	13,283	17,708	22,132	25,906	87	349

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING**PCH36GK+PUGH36 (Indoor Air = 1130 CFM)**

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	37,947	10.68	3,554	32,186	36,455	31,593	26,732	31,001	73	221
65	38,614	10.80	3,574	27,244	31,512	29,168	26,824	31,092	74	222
67	39,282	10.93	3,594	22,301	26,570	26,743	26,915	31,184	75	224
69	39,950	11.05	3,614	17,359	21,627	24,317	27,007	31,275	75	225
71	40,617	11.18	3,634	12,417	16,685	21,892	27,098	31,367	76	226

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	35,629	9.58	3,720	26,262	30,530	33,701	36,872	41,140	76	250
65	36,736	9.93	3,700	22,768	27,036	30,241	34,386	38,654	76	249
67	37,541	10.28	3,652	19,274	23,542	26,781	31,900	36,169	77	248
69	38,799	10.27	3,778	15,780	20,048	24,261	29,414	33,683	80	254
71	40,056	10.26	3,906	12,286	16,554	21,741	26,928	31,197	82	260

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	33,312	8.57	3,886	20,337	24,605	35,808	47,011	51,280	78	280
65	34,858	9.11	3,826	18,291	22,560	31,314	41,948	46,217	79	276
67	35,800	9.65	3,710	16,246	20,514	26,819	36,885	41,153	79	273
69	37,647	9.55	3,941	14,200	18,469	24,205	31,822	36,090	84	283
71	39,495	9.45	4,178	12,155	16,423	21,591	26,759	31,027	88	293

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	30,483	7.53	4,046	19,200	23,469	29,750	36,032	40,301	82	314
65	32,152	7.89	4,075	17,182	21,451	27,332	34,155	38,423	83	315
67	33,520	8.23	4,071	15,164	19,433	24,914	32,277	36,545	85	315
69	35,340	8.34	4,237	13,146	17,415	23,437	30,399	34,668	89	323
71	37,160	8.44	4,403	11,128	15,397	21,959	28,522	32,790	92	330

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	27,654	6.57	4,207	18,063	22,332	23,693	25,053	29,322	85	349
65	29,447	6.81	4,323	16,073	20,341	23,351	26,361	30,630	88	353
67	31,240	7.05	4,432	14,082	18,351	23,010	27,669	31,938	91	358
69	33,032	7.29	4,533	12,092	16,360	22,668	28,977	33,245	94	363
71	34,825	7.52	4,629	10,101	14,370	22,327	30,285	34,553	97	367

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PCH42GK+PUGH42 (Indoor Air = 1130 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	36,479	11.14	3,275	22,757	26,149	29,943	33,737	37,129	57	213
65	37,430	11.36	3,296	20,255	23,647	27,857	32,067	35,459	58	214
67	38,380	11.57	3,317	17,753	21,145	25,771	30,397	33,789	60	215
69	39,331	11.79	3,337	15,251	18,643	23,685	28,727	32,119	61	215
71	40,281	12.00	3,357	12,749	16,141	21,599	27,057	30,449	62	216

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	36,064	9.94	3,627	22,805	26,197	30,037	33,878	37,270	61	245
65	37,270	10.41	3,580	20,283	23,675	28,549	32,322	35,714	63	246
67	39,440	10.85	3,634	17,762	21,154	27,061	30,765	34,157	64	247
69	40,166	10.92	3,678	15,241	18,633	24,471	29,209	32,601	66	249
71	40,891	10.98	3,723	12,720	16,112	21,882	27,652	31,044	68	250

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	35,648	8.96	3,979	22,852	26,244	30,132	34,019	37,411	65	276
65	37,111	9.61	3,864	20,312	23,704	29,241	32,576	35,968	67	278
67	40,500	10.25	3,951	17,771	21,163	28,350	31,133	34,525	69	280
69	41,001	10.20	4,020	15,231	18,623	25,257	29,690	33,082	72	282
71	41,501	10.15	4,089	12,690	16,082	22,165	28,247	31,639	74	284

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	33,330	7.59	4,390	21,891	25,283	29,012	32,741	36,133	68	312
65	34,896	8.01	4,357	19,548	22,940	27,743	31,445	34,837	70	314
67	37,425	8.46	4,424	17,206	20,598	26,474	30,149	33,541	72	316
69	38,510	8.60	4,479	14,863	18,255	24,104	28,852	32,244	75	319
71	39,595	8.73	4,534	12,521	15,913	21,734	27,556	30,948	78	321

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	31,011	6.46	4,800	20,930	24,322	27,893	31,463	34,855	70	347
65	32,680	6.74	4,851	18,785	22,177	26,245	30,314	33,706	73	350
67	34,350	7.02	4,897	16,641	20,033	24,598	29,164	32,556	76	353
69	36,019	7.29	4,939	14,496	17,888	22,951	28,015	31,407	78	355
71	37,688	7.57	4,979	12,351	15,743	21,304	26,865	30,257	81	358

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING**PKH18FK+PUGH18 (Indoor Air = 640 CFM)**

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Disch.
				70	75	80	85	90		
63	20,448	12.75	1,604	10,794	14,186	16,739	19,291	22,683	71	214
65	20,610	12.89	1,600	9,389	12,781	15,440	18,098	21,490	72	215
67	20,772	13.02	1,595	7,985	11,377	14,141	16,905	20,297	73	216
69	20,933	13.16	1,591	6,580	9,972	12,842	15,711	19,103	74	217
71	21,095	13.29	1,587	5,175	8,567	11,543	14,518	17,910	75	218

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	19,093	11.28	1,693	10,252	13,644	16,016	18,388	21,780	74	235
65	19,527	11.32	1,724	8,909	12,301	14,989	17,395	20,787	75	240
67	19,336	11.42	1,693	7,567	10,959	13,962	16,401	19,793	77	246
69	20,083	11.73	1,711	6,224	9,616	12,653	15,408	18,800	79	248
71	20,830	12.05	1,728	4,882	8,274	11,344	14,415	17,807	81	251

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	17,737	9.95	1,783	9,709	13,101	15,293	17,485	20,877	76	255
65	18,444	9.98	1,849	8,429	11,821	14,538	16,692	20,084	78	266
67	17,900	10.00	1,790	7,149	10,541	13,783	15,898	19,290	81	276
69	19,233	10.50	1,832	5,869	9,261	12,465	15,105	18,497	83	280
71	20,565	11.00	1,870	4,589	7,981	11,146	14,311	17,703	86	283

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	16,144	8.46	1,909	8,885	12,277	13,857	15,437	18,829	79	294
65	16,694	8.62	1,936	7,684	11,076	13,181	15,005	18,397	81	301
67	16,619	8.75	1,900	6,484	9,876	12,506	14,573	17,965	83	308
69	17,482	9.13	1,915	5,283	8,675	11,549	14,141	17,533	86	312
71	18,345	9.51	1,929	4,083	7,475	10,592	13,709	17,101	89	316

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	14,551	7.15	2,035	8,060	11,452	12,420	13,388	16,780	81	333
65	14,944	7.39	2,022	6,939	10,331	11,824	13,318	16,710	84	337
67	15,338	7.63	2,010	5,818	9,210	11,229	13,248	16,640	86	341
69	15,731	7.87	1,999	4,697	8,089	10,633	13,177	16,569	89	344
71	16,124	8.11	1,988	3,576	6,968	10,038	13,107	16,499	91	348

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PKH24FK+PUGH24 (Indoor Air = 640 CFM)

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	24,336	10.92	2,229	12,984	16,376	19,406	22,436	25,828	63	214
65	25,721	11.32	2,272	11,765	15,157	18,213	21,269	24,661	66	220
67	27,106	11.72	2,313	10,546	13,938	17,020	20,102	23,494	69	226
69	28,491	12.12	2,351	9,326	12,718	15,827	18,935	22,327	71	232
71	29,876	12.52	2,386	8,107	11,499	14,634	17,768	21,160	74	238

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	17,609	10.06	1,750	12,224	15,616	18,480	21,344	24,736	65	240
65	20,154	10.30	1,957	11,016	14,408	17,473	20,271	23,663	68	246
67	25,253	10.40	2,428	9,809	13,201	16,466	19,199	22,591	71	252
69	26,522	10.72	2,475	8,602	11,994	15,193	18,127	21,519	74	259
71	27,791	11.03	2,520	7,395	10,787	13,921	17,055	20,447	77	265

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	10,881	8.56	1,271	11,463	14,855	17,553	20,251	23,643	67	265
65	14,587	8.88	1,643	10,268	13,660	16,733	19,274	22,666	70	272
67	23,400	9.20	2,543	9,073	12,465	15,912	18,296	21,688	73	278
69	24,553	9.45	2,600	7,877	11,269	14,560	17,319	20,711	76	285
71	25,706	9.69	2,653	6,682	10,074	13,208	16,341	19,733	79	292

105 F Outdoor Air Temperature										
Indoor Wet Bulb (F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/Hr)					Pressures (psig)	
				Indoor Dry Bulb (F)					Suction	Disch.
				70	75	80	85	90		
63	14,128	7.16	1,972	10,738	14,130	16,660	19,190	22,582	70	296
65	16,530	7.53	2,195	9,545	12,937	15,746	18,289	21,681	72	302
67	21,485	8.02	2,680	8,352	11,744	14,832	17,388	20,780	75	308
69	22,610	8.25	2,740	7,159	10,551	13,652	16,487	19,879	78	315
71	23,735	8.49	2,797	5,967	9,359	12,473	15,587	18,979	81	322

115 F Outdoor Air Temperature										
Indoor Wet Bulb (F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/Hr)					Pressures (psig)	
				Indoor Dry Bulb (F)					Suction	Disch.
				70	75	80	85	90		
63	17,375	6.50	2,673	10,013	13,405	15,767	18,128	21,520	72	326
65	18,472	6.73	2,747	8,823	12,215	14,759	17,304	20,696	75	332
67	19,569	6.95	2,816	7,632	11,024	13,752	16,480	19,872	78	339
69	20,666	7.18	2,880	6,442	9,834	12,745	15,656	19,048	80	345
71	21,763	7.40	2,941	5,251	8,643	11,738	14,832	18,224	83	351

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING**PKH30FK+PUGH30 (Indoor Air = 910 CFM)**

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	31,457	11.32	2,779	17,356	20,748	25,642	30,536	33,928	60	205
65	32,246	11.42	2,824	15,545	18,937	23,539	28,140	31,532	61	206
67	33,034	11.52	2,869	13,734	17,126	21,435	25,744	29,136	62	207
69	33,823	11.61	2,913	11,923	15,315	19,332	23,348	26,740	63	208
71	34,611	11.71	2,956	10,112	13,504	17,228	20,952	24,344	64	209

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	30,526	10.25	2,979	17,025	20,417	24,740	29,063	32,455	65	237
65	31,429	10.44	3,010	15,316	18,708	23,057	27,056	30,448	67	241
67	31,317	10.66	2,937	13,607	16,999	21,374	25,049	28,441	70	245
69	32,728	10.73	3,049	11,897	15,289	19,340	23,042	26,434	72	245
71	34,139	10.81	3,159	10,188	13,580	17,307	21,035	24,427	74	245

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	29,594	9.31	3,179	16,694	20,086	23,838	27,590	30,982	69	268
65	30,612	9.58	3,195	15,087	18,479	22,575	25,972	29,364	74	275
67	29,600	9.85	3,005	13,479	16,871	21,312	24,354	27,746	79	282
69	31,633	9.93	3,186	11,872	15,264	19,349	22,735	26,127	81	282
71	33,666	10.01	3,363	10,264	13,656	17,387	21,117	24,509	83	281

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	27,069	8.16	3,318	15,720	19,112	22,737	26,362	29,754	72	302
65	28,339	8.41	3,372	14,141	17,533	21,390	24,898	28,290	76	307
67	28,595	8.62	3,319	12,563	15,955	20,044	23,433	26,825	79	312
69	30,373	8.81	3,449	10,984	14,376	18,347	21,969	25,361	81	313
71	32,151	8.99	3,575	9,406	12,798	16,651	20,505	23,897	84	314

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	24,543	7.10	3,457	14,745	18,137	21,636	25,134	28,526	75	336
65	26,066	7.35	3,548	13,196	16,588	20,206	23,824	27,216	77	339
67	27,590	7.60	3,633	11,646	15,038	18,776	22,513	25,905	80	342
69	29,113	7.84	3,712	10,097	13,489	17,346	21,203	24,595	82	344
71	30,636	8.09	3,787	8,547	11,939	15,916	19,892	23,284	84	347

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PKH36FK+PUGH36 (Indoor Air = 885 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	31,375	10.90	2,878	25,577	28,969	25,106	21,243	24,635	68	215
65	31,927	11.03	2,895	21,650	25,042	23,179	21,316	24,708	69	216
67	32,479	11.16	2,912	17,722	21,114	21,251	21,389	24,781	70	218
69	33,031	11.28	2,928	13,795	17,187	19,324	21,461	24,853	70	219
71	33,583	11.41	2,943	9,867	13,259	17,397	21,534	24,926	71	220

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	29,459	9.78	3,013	20,869	24,261	26,781	29,301	32,693	71	244
65	30,374	10.13	2,997	18,093	21,485	24,031	27,325	30,717	71	242
67	31,040	10.49	2,958	15,316	18,708	21,282	25,350	28,742	72	241
69	32,079	10.48	3,060	12,540	15,932	19,279	23,374	26,766	74	247
71	33,119	10.47	3,164	9,763	13,155	17,277	21,399	24,791	77	253

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	27,543	8.75	3,148	16,161	19,553	28,456	37,358	40,750	73	272
65	28,821	9.30	3,099	14,536	17,928	24,884	33,335	36,727	73	269
67	29,600	9.85	3,005	12,910	16,302	21,312	29,311	32,703	74	265
69	31,128	9.75	3,193	11,285	14,677	19,235	25,288	28,680	78	275
71	32,655	9.65	3,384	9,659	13,051	17,158	21,264	24,656	82	285

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	25,204	7.69	3,278	15,258	18,650	23,642	28,634	32,026	76	306
65	26,584	8.05	3,300	13,654	17,046	21,720	27,141	30,533	78	306
67	27,715	8.40	3,297	12,050	15,442	19,799	25,649	29,041	79	307
69	29,220	8.51	3,432	10,447	13,839	18,624	24,157	27,549	83	314
71	30,725	8.61	3,567	8,843	12,235	17,450	22,665	26,057	86	321

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	22,865	6.71	3,408	14,354	17,746	18,828	19,909	23,301	79	339
65	24,347	6.95	3,502	12,772	16,164	18,556	20,948	24,340	82	344
67	25,830	7.20	3,590	11,191	14,583	18,285	21,988	25,380	85	348
69	27,312	7.44	3,672	9,609	13,001	18,014	23,027	26,419	87	353
71	28,794	7.68	3,749	8,027	11,419	17,743	24,066	27,458	90	357

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PLH18AK+PUGH18 (Indoor Air = 670 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	21,933	12.75	1,720	11,655	15,318	18,074	20,831	24,493	76	219
65	22,107	12.89	1,716	10,139	13,801	16,672	19,542	23,205	78	220
67	22,280	13.02	1,711	8,622	12,284	15,269	18,254	21,916	79	221
69	22,454	13.16	1,707	7,105	10,768	13,866	16,965	20,628	80	222
71	22,627	13.29	1,703	5,588	9,251	12,464	15,677	19,339	81	223

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	20,479	11.28	1,816	11,070	14,732	17,294	19,856	23,518	79	240
65	20,945	11.32	1,849	9,620	13,283	16,185	18,783	22,446	81	245
67	20,740	11.42	1,816	8,171	11,833	15,076	17,710	21,373	83	251
69	21,541	11.73	1,836	6,721	10,384	13,663	16,638	20,300	85	253
71	22,343	12.05	1,854	5,272	8,934	12,250	15,565	19,228	87	256

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	19,025	9.95	1,912	10,484	14,147	16,514	18,880	22,543	82	260
65	19,784	9.98	1,983	9,102	12,764	15,698	18,024	21,686	84	271
67	19,200	10.00	1,920	7,720	11,382	14,883	17,167	20,830	87	281
69	20,629	10.50	1,965	6,337	10,000	13,459	16,310	19,973	90	285
71	22,059	11.00	2,005	4,955	8,618	12,036	15,453	19,116	93	288

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	17,316	8.46	2,047	9,594	13,256	14,962	16,668	20,331	85	299
65	17,907	8.62	2,076	8,297	11,960	14,233	16,202	19,865	87	306
67	17,826	8.75	2,038	7,001	10,664	13,504	15,736	19,398	90	313
69	18,751	9.13	2,054	5,705	9,367	12,471	15,269	18,932	93	317
71	19,677	9.51	2,069	4,408	8,071	11,437	14,803	18,466	95	321

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	15,608	7.15	2,183	8,703	12,366	13,411	14,456	18,119	87	338
65	16,030	7.39	2,169	7,493	11,156	12,768	14,381	18,043	90	342
67	16,451	7.63	2,156	6,282	9,945	12,125	14,305	17,967	93	346
69	16,873	7.87	2,144	5,072	8,735	11,482	14,229	17,892	95	349
71	17,295	8.11	2,133	3,861	7,524	10,839	14,153	17,816	98	353

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PLH24AK+PUGH24 (Indoor Air = 950 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	25,376	10.56	2,402	15,758	19,875	23,553	27,230	31,347	67	217
65	26,820	10.95	2,449	14,279	18,395	22,105	25,814	29,930	70	223
67	28,264	11.34	2,493	12,799	16,916	20,656	24,397	28,514	73	229
69	29,709	11.72	2,534	11,319	15,436	19,208	22,981	27,098	76	235
71	31,153	12.11	2,572	9,839	13,956	17,760	21,565	25,681	79	241

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	18,361	9.73	1,886	14,835	18,952	22,428	25,904	30,021	69	243
65	21,015	9.96	2,110	13,370	17,487	21,206	24,603	28,720	72	249
67	26,332	10.06	2,617	11,905	16,022	19,984	23,301	27,418	75	256
69	27,655	10.37	2,668	10,440	14,557	18,440	22,000	26,117	79	262
71	28,979	10.67	2,716	8,975	13,091	16,895	20,699	24,815	82	269

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	11,346	8.28	1,370	13,912	18,029	21,304	24,578	28,695	72	269
65	15,211	8.59	1,771	12,462	16,579	20,308	23,392	27,509	75	275
67	24,400	8.90	2,742	11,011	15,128	19,312	22,205	26,322	78	282
69	25,602	9.14	2,802	9,560	13,677	17,671	21,019	25,136	81	289
71	26,805	9.37	2,859	8,110	12,227	16,030	19,833	23,949	84	296

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	14,732	6.93	2,126	13,032	17,149	20,220	23,290	27,407	74	300
65	17,236	7.29	2,366	11,585	15,701	19,110	22,197	26,313	77	306
67	22,403	7.76	2,888	10,137	14,254	18,001	21,103	25,220	80	313
69	23,576	7.98	2,953	8,689	12,806	16,569	20,010	24,127	83	319
71	24,749	8.21	3,015	7,241	11,358	15,138	18,917	23,034	86	326

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	18,118	6.29	2,881	12,153	16,269	19,135	22,002	26,118	77	331
65	19,261	6.51	2,961	10,708	14,824	17,913	21,001	25,118	80	337
67	20,405	6.72	3,035	9,263	13,380	16,690	20,001	24,118	83	343
69	21,549	6.94	3,105	7,818	11,935	15,468	19,001	23,118	86	350
71	22,693	7.16	3,170	6,373	10,490	14,246	18,001	22,118	89	356

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PLH30AK+PUGH30 (Indoor Air = 1020 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	29,544	10.17	2,905	17,275	20,651	25,522	30,393	33,769	57	203
65	30,285	10.26	2,952	15,472	18,848	23,428	28,008	31,384	58	204
67	31,025	10.35	2,999	13,670	17,046	21,334	25,623	28,999	59	205
69	31,766	10.43	3,045	11,867	15,243	19,241	23,238	26,615	60	206
71	32,506	10.52	3,090	10,065	13,441	17,147	20,854	24,230	61	207
85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	28,669	9.21	3,114	16,945	20,321	24,624	28,927	32,303	62	234
65	29,518	9.38	3,146	15,244	18,620	22,949	26,929	30,305	65	238
67	29,413	9.58	3,070	13,543	16,919	21,273	24,931	28,307	67	242
69	30,738	9.64	3,187	11,841	15,218	19,250	22,934	26,310	69	242
71	32,063	9.71	3,303	10,140	13,516	17,226	20,936	24,312	70	242
95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	27,794	8.36	3,323	16,616	19,992	23,726	27,461	30,837	66	265
65	28,750	8.61	3,340	15,016	18,392	22,469	25,850	29,226	71	272
67	27,800	8.85	3,141	13,416	16,792	21,212	24,239	27,615	76	279
69	29,709	8.92	3,330	11,816	15,192	19,258	22,629	26,005	77	279
71	31,619	8.99	3,516	10,216	13,592	17,305	21,018	24,394	79	278
105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	25,422	7.33	3,468	15,646	19,022	22,630	26,238	29,614	69	299
65	26,616	7.55	3,524	14,075	17,451	21,290	24,781	28,157	72	304
67	26,856	7.74	3,469	12,504	15,880	19,950	23,323	26,699	76	308
69	28,526	7.91	3,605	10,932	14,309	18,261	21,866	25,242	78	310
71	30,196	8.08	3,737	9,361	12,737	16,573	20,408	23,784	80	311
115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	23,051	6.38	3,613	14,676	18,052	21,534	25,016	28,392	72	332
65	24,481	6.60	3,708	13,134	16,510	20,111	23,712	27,088	74	335
67	25,912	6.82	3,797	11,591	14,967	18,687	22,407	25,783	76	338
69	27,342	7.05	3,880	10,049	13,425	17,264	21,103	24,479	78	341
71	28,773	7.27	3,958	8,507	11,883	15,841	19,799	23,175	80	343

4 PERFORMANCE DATA - OPERATING PRESSURES - COOLING

PLH36AK+PUGH36 (Indoor Air = 1020 CFM)

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	36,251	10.90	3,326	27,910	31,611	27,396	23,181	26,882	72	219
65	36,889	11.03	3,345	23,624	27,326	25,293	23,260	26,961	73	220
67	37,526	11.16	3,364	19,339	23,040	23,190	23,339	27,041	74	221
69	38,164	11.28	3,383	15,053	18,754	21,087	23,419	27,120	75	223
71	38,802	11.41	3,401	10,767	14,468	18,983	23,498	27,200	75	224

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	34,037	9.78	3,481	22,773	26,474	29,224	31,973	35,675	75	248
65	35,094	10.13	3,463	19,743	23,444	26,223	29,818	33,519	75	247
67	35,863	10.49	3,418	16,713	20,414	23,223	27,662	31,363	76	246
69	37,065	10.48	3,536	13,683	17,385	21,038	25,506	29,208	79	251
71	38,266	10.47	3,655	10,654	14,355	18,853	23,351	27,052	81	257

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	31,823	8.75	3,637	17,635	21,337	31,051	40,766	44,467	77	277
65	33,300	9.30	3,581	15,861	19,563	27,154	36,375	40,077	78	273
67	34,200	9.85	3,472	14,088	17,789	23,256	31,985	35,686	78	270
69	35,965	9.75	3,689	12,314	16,015	20,989	27,594	31,296	83	280
71	37,730	9.65	3,910	10,540	14,241	18,723	23,204	26,905	87	290

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	29,121	7.69	3,787	16,649	20,351	25,798	31,245	34,947	81	311
65	30,715	8.05	3,813	14,899	18,601	23,701	29,617	33,319	82	311
67	32,022	8.40	3,810	13,149	16,851	21,604	27,989	31,690	84	312
69	33,761	8.51	3,966	11,400	15,101	20,323	26,361	30,062	88	319
71	35,499	8.61	4,121	9,650	13,351	19,042	24,732	28,434	91	327

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	26,418	6.71	3,937	15,663	19,365	20,545	21,725	25,426	84	345
65	28,131	6.95	4,046	13,937	17,639	20,249	22,859	26,560	87	349
67	29,844	7.20	4,148	12,211	15,913	19,953	23,993	27,695	90	354
69	31,556	7.44	4,243	10,485	14,187	19,657	25,127	28,829	93	359
71	33,269	7.68	4,332	8,759	12,461	19,361	26,261	29,963	95	363

4

PERFORMANCE DATA - OPERATING PRESSURES - COOLING**PLH42AK+PUGH42 (Indoor Air = 1100 CFM)**

75 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	36,029	10.71	3,366	21,312	24,489	28,042	31,595	34,772	55	212
65	36,967	10.91	3,388	18,969	22,146	26,088	30,031	33,208	57	213
67	37,906	11.12	3,409	16,626	19,802	24,135	28,467	31,644	58	214
69	38,845	11.33	3,430	14,283	17,459	22,181	26,903	30,080	59	214
71	39,784	11.53	3,450	11,940	15,116	20,228	25,339	28,516	60	215

85 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	35,618	9.56	3,727	21,357	24,533	28,130	31,727	34,904	59	244
65	36,810	10.00	3,679	18,855	22,294	26,736	32,109	35,548	61	245
67	38,953	10.43	3,735	16,354	20,056	25,342	32,491	36,192	62	246
69	39,670	10.49	3,781	14,133	17,572	22,917	29,194	32,633	64	248
71	40,386	10.56	3,826	11,912	15,089	20,492	25,896	29,073	66	249

95 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	35,208	8.61	4,089	21,401	24,578	28,218	31,859	35,036	63	275
65	36,653	9.23	3,971	19,022	22,199	27,384	30,508	33,684	65	277
67	40,000	9.85	4,061	16,083	20,309	26,550	36,515	40,741	67	279
69	40,494	9.80	4,131	14,263	17,440	23,654	27,805	30,982	70	281
71	40,989	9.75	4,202	11,884	15,061	20,757	26,454	29,630	72	283

105 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	32,918	7.30	4,511	20,501	23,678	27,170	30,662	33,839	66	310
65	34,465	7.70	4,478	18,307	21,484	25,982	29,448	32,625	68	313
67	36,963	8.13	4,547	15,833	19,535	24,793	31,914	35,615	70	315
69	38,034	8.26	4,604	13,919	17,096	22,574	27,020	30,197	73	317
71	39,106	8.39	4,660	11,726	14,902	20,354	25,806	28,983	75	320

115 °F Outdoor Air Temperature										
Indoor Wet Bulb (°F)	Cooling Capacity (Btu/hr)	EER	Total Power (Watts)	Net Sensible Cooling Capacity (Btu/hr)					Pressures (psig)	
				Indoor Dry Bulb (°F)					Suction	Discharge
				70	75	80	85	90		
63	30,628	6.21	4,934	19,601	22,778	26,122	29,465	32,642	68	346
65	32,277	6.47	4,985	17,593	20,769	24,579	28,389	31,565	71	349
67	33,925	6.74	5,033	15,584	18,761	23,036	27,312	30,489	73	351
69	35,574	7.01	5,076	13,575	16,752	21,494	26,236	29,412	76	354
71	37,223	7.27	5,117	11,567	14,743	19,951	25,159	28,336	79	357

5 PERFORMANCE DATA - OPERATING PRESSURES - HEATING

PKH18FK/PUGH18			Indoor Air 70			PKH30FK/PUGH30			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	23,474	640	7.1	247	78	65	39,436	910	14.1	287	75
60	21,687		6.8	235	71	60	36,485		13.4	270	69
55	19,900		6.6	223	64	55	33,533		12.7	252	62
50	18,650		6.4	215	59	50	31,767		11.4	242	58
47	17,400		6.2	207	55	47	30,000		10.1	231	54
45	16,294		6.0	201	51	45	27,705		10.6	221	51
40	15,187		5.9	194	47	40	25,410		11.1	211	47
35	13,866		5.7	187	43	35	23,383		10.6	203	44
30	12,546		5.5	180	39	30	21,355		10.0	194	40
25	11,225		5.3	173	35	25	19,328		9.5	186	37
20	10,113		5.2	168	32	20	18,064		9.4	181	35
17	9,000		5.1	162	29	17	16,800		9.3	176	32

PKH24FK/PUGH24			Indoor Air 70			PKH36FK/PUGH36			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	28,217	640	10.5	324	65	65	45,353	885	15.9	329	80
60	26,745		10.0	307	64	60	41,996		15.1	312	74
55	25,272		9.6	290	62	55	38,639		14.2	294	67
50	24,136		9.3	278	59	50	36,820		15.2	280	62
47	23,000		8.9	266	56	47	35,000		16.3	265	58
45	21,771		8.6	254	52	45	32,820		14.1	256	54
40	20,541		8.2	241	48	40	30,640		11.9	246	50
35	19,250		7.9	228	44	35	28,109		11.3	234	46
30	17,960		7.6	215	41	30	25,577		10.6	223	41
25	16,669		7.3	202	37	25	23,046		10.0	211	37
20	15,185		7.0	193	34	20	21,123		9.7	203	34
17	13,700		6.7	184	31	17	19,200		9.4	195	31

5 PERFORMANCE DATA - OPERATING PRESSURES - HEATING

PLH18AK/PUGH18			Indoor Air 70			PLH36AK/PUGH36			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	25,902	810	7.1	196	76	65	47,719	1130	15.9	317	80
60	23,930		6.8	186	69	60	44,187		15.1	300	73
55	21,959		6.6	177	62	55	40,655		14.2	283	67
50	20,579		6.4	170	58	50	38,527		15.2	266	158
47	19,200		6.2	164	53	47	36,400		16.3	249	249
45	17,979		6.0	159	50	45	34,319		14.1	243	150
40	16,758		5.9	154	46	40	32,239		11.9	237	50
35	15,301		5.7	148	42	35	29,575		7.9	226	45
30	13,843		5.5	143	38	30	26,912		7.6	214	41
25	12,386		5.3	137	34	25	24,248		10.0	203	36
20	11,243		5.2	133	31	20	22,224		9.7	195	34
17	10,100		5.1	128	28	17	20,200		9.4	188	31

PLH24AK/PUGH24			Indoor Air 70			PLH42AK/PUGH42			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	28,217	1130	10.5	312	65	65	57,004	1020	18.5	312	62
60	26,745		10.0	295	63	60	54,251		17.9	300	64
55	25,272		9.6	279	62	55	51,498		17.4	287	65
50	24,736		9.3	268	58	50	48,249		16.8	286	59
47	24,200		8.9	256	55	47	45,000		16.3	285	54
45	22,371		8.6	244	51	45	42,719		16.0	265	50
40	20,541		8.2	232	48	40	40,438		15.6	244	46
35	19,250		7.9	219	44	35	36,596		15.3	234	42
30	17,960		7.6	207	40	30	32,755		14.9	223	38
25	16,669		7.3	194	37	25	28,913		14.6	213	34
20	15,535		7.0	186	34	20	28,657		14.3	204	31
17	14,400		6.7	177	31	17	28,400		14.0	195	27

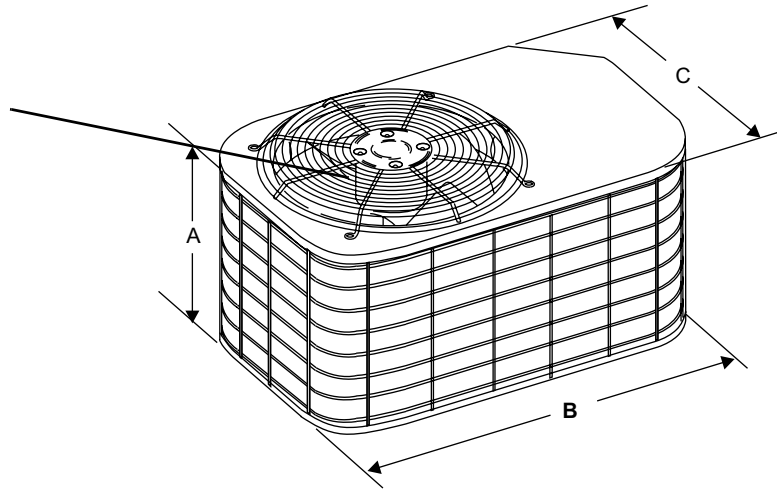
PLH30AK/PUGH30			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)	
				Disch.	Suction
65	43,516	1130	14.1	227	73
60	40,259		13.4	214	67
55	37,002		12.7	200	61
50	33,601		11.4	220	58
47	30,200		10.1	241	55
45	29,119		10.6	204	50
40	28,039		11.1	167	46
35	25,802		5.7	161	43
30	23,565		5.5	154	39
25	21,327		9.5	147	36
20	19,114		9.4	143	34
17	16,900		9.3	139	31

5 PERFORMANCE DATA - OPERATING PRESSURES - HEATING

PCH24GK/PUGH24			Indoor Air 70			PCH36GK/PUGH36			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	29,689	810	10.5	308	65	65	46,908	1130	15.9	313	79
60	28,140		10.0	292	63	60	43,436		15.1	296	73
55	26,591		9.6	276	62	55	39,964		14.2	280	66
50	25,395		7.9	264	59	50	38,082		12.1	266	62
47	24,200		6.2	253	55	47	36,200		10.1	252	57
45	22,906		7.2	241	52	45	33,945		11.0	243	53
40	21,613		8.2	229	48	40	31,691		11.9	234	50
35	20,255		7.9	217	44	35	29,072		11.3	223	45
30	18,897		7.6	204	41	30	26,454		10.6	212	41
25	17,539		7.3	192	37	25	23,836		10.0	201	36
20	15,969		7.0	184	34	20	21,918		9.7	193	34
17	14,400		6.7	175	31	17	20,000		9.4	185	31

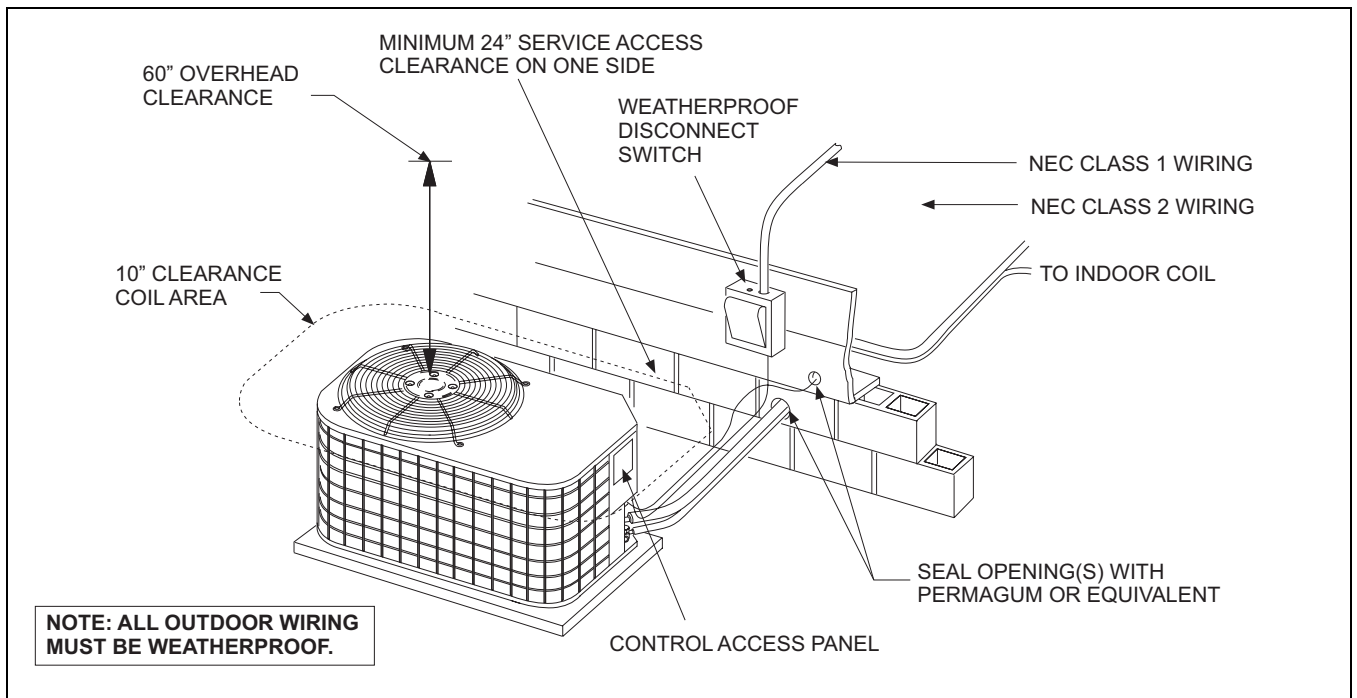
PCH30GK/PUGH30			Indoor Air 70			PCH42GK/PUGH42			Indoor Air 70		
Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor			Outdoor Air (Deg F)	Heating Capacity (BTUH)	Air Flow (CFM)	Compressor		
			Current (Amps)	Pressure (psig)					Current (Amps)	Pressure (psig)	
				Disch.	Suction					Disch.	Suction
65	40,751	1130	14.1	280	75	65	57,004	1130	18.5	307	62
60	37,701		13.4	263	68	60	54,251		17.9	295	63
55	34,651		12.7	245	62	55	51,498		17.4	282	65
50	32,825		10.8	235	58	50	48,249		16.8	281	59
47	31,000		8.9	225	54	47	45,000		16.3	280	54
45	28,629		10.0	215	50	45	42,719		16.0	260	50
40	26,257		11.1	206	47	40	40,438		15.6	240	46
35	24,162		10.6	197	44	35	36,596		15.3	230	42
30	22,067		10.0	189	40	30	32,755		14.9	219	38
25	19,972		9.5	181	37	25	28,913		14.6	209	34
20	18,686		9.4	176	34	20	28,657		14.3	201	31
17	17,400		9.3	171	32	17	28,400		14.0	192	27

6 DIMENSIONS AND CLEARANCES



Model	A	B	C
PUGH18AYB	19" (483 mm)	35" (889 mm)	23" (584 mm)
PUGH24AYB	25" (635 mm)	35" (889 mm)	23" (584 mm)
PUGH30AYB	25" (635 mm)	35" (889 mm)	23" (584 mm)
PUGH36AYB	27" (686 mm)	37" (940 mm)	27" (686 mm)
PUGH42AYB	33" (838 mm)	37" (940 mm)	27" (686 mm)

TYPICAL INSTALLATION



7 OPERATING PRESSURES / SUPERHEAT

SYSTEM CHARGE

The factory charge in the outdoor unit includes enough charge for the unit and the smallest matched evaporator and 25 feet of line. Some evaporator matches may require some additional charge. See Tabular Data sheet provided in unit literature packet.

The "TOTAL SYSTEM CHARGE" must be permanently stamped on the unit data plate.

Total system charge is determined as follows:

1. Determine outdoor unit charge for the selected evaporator from the corresponding table on Pages 4-6.
2. If using line length other than 25 feet, calculate the line charge from the tables on Page 24.

NOTE: The line charge over 25 feet should be included on the data plate and must be added to the system.

3. Total system charge = item 1 + item 2.
4. Permanently stamp the unit data plate with the total amount of refrigerant in the system.

Use one of the following charging methods whenever additional refrigerant is required for the system charge.

CAUTION

Refrigerant charging should only be carried out by a qualified air conditioning contractor.

MEASUREMENT METHOD

If a calibrated charging cylinder or accurate weighing device is available, add refrigerant accordingly.

CAUTION

Compressor damage will occur if system is improperly charged. On new system installations charge system per R-22 charge information label and follow guidelines in this instruction.

Check flare caps on service ports to be sure they are leak tight. DO NOT OVER TIGHTEN (between 40 and 60 inch - lbs. maximum).

SUPERHEAT CHARGING METHOD

NOTE: Use this method only during system maintenance and repair.

1. Operate system until temperatures and pressures stabilize (minimum of 10 minutes).
2. Measure and record indoor wet bulb (WB) temperature using a sling psychrometer and the outdoor dry bulb (DB) temperature using a thermometer.

Table 1: SUPERHEAT VALUE

INDOOR WB °F ¹	OUTDOOR DB°F												
	55	60	65	70	75	80	85	90	95	100	105	110	115
50	9	7											
52	12	10	6										
54	14	12	10	7									
56	17	15	14	10	6								
58	20	18	16	13	9	5							
60	23	21	19	16	12	8	6						
62	26	24	22	19	16	12	8	5					
64	29	27	24	21	18	15	11	9	6				
66	32	31	30	24	23	18	15	11	9	6			
68	35	33	30	27	24	21	19	16	14	12	9	6	
70		35	33	30	28	25	22	20	18	15	13	11	8
72			35	33	30	28	26	24	20	20	17	15	14
74					34	31	30	27	25	23	22	20	18
76						35	33	31	29	27	26	25	23

1. Evaporator Entering Air °F

7 OPERATING PRESSURES / SUPERHEAT

Table 2: TEMPERATURE AND PRESSURE

SUCTION PRESSURE PSIG (Service Port)	SUCTION SERVICE VALVE SUPERHEAT																	
	0 ¹	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34
61.5	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69
64.2	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71
67.1	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73
70.0	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75
73.0	43	45	47	49	51	53	55	57	59	61	63	63	67	69	71	73	75	77
76.0	45	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79
79.2	47	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81
82.4	49	51	53	55	57	59	61	63	65	67	69	71	73	75	77	79	81	83

1. Saturation Temperature
3. Measure and record the suction pressure at the suction service valve port.
4. Using Table 1, note the superheat value corresponding to the intersection of the indoor wet bulb and the outdoor dry bulb.
5. With the superheat value obtained in step 4 and the suction pressure value from step 3, find the intersection of the values in Table 2. This is the required suction tube temperature at the suction service valve.
6. To bring the tube temperature in line with the required value from Table 2, add refrigerant to the service port to cause the tube temperature to fall and reclaim refrigerant to cause the temperature to rise.

8 OPERATING RANGE

1. POWER SUPPLY

1 Phase 60 Hz 208/230 V

Normal Voltage Range: 187 to 252

(Rated in accordance with ARI Standard 110)

2. OPERATING TEMPERATURE RANGE

FUNCTION	CONDITION	AIR INTAKE		INDOOR		OUTDOOR	
		DB (°F)	WB (°F)	DB (°F)	WB (°F)		
Cooling	Standard temperature Maximum temperature Minimum temperature Maximum humidity	80	67	95	75		
		95	71	115	-		
		67	57	55 ¹	-		
		80	75	80	75		
Heating	Standard temperature Maximum temperature Minimum temperature	70	60	47	43		
		70	60	17	15		
		80	67	75	65		

1. A low ambient accessory kit is required for operation below this temperature which extends cooling operation to 25°.

9

REFRIGERANT CHARGE (R-22 OZ.) ADJUSTMENT FOR OPTIMUM PERFORMANCE

MODEL	LIQUID OD	VAPOR OD	R-22 CHARGE, OZ/FT
PUGH18,24	3/8	5/8	0.14
PUGH30, 36	1/2	3/4	0.33
PUGH42	1/2	7/8	0.35

MODEL	FACTORY CHARGE / ARI RATING POINT	ADD CHARGE		
	25 FT	40 FT	55 FT	70 FT
	R-22 CHARGE, OZ			
PUGH18AYB	56.0	4	8	12
PUGH24AYB	91.0	4	8	13
PUGH30AYB	79.0	4	9	13
PUGH36AYB	85.0	8	15	23
PUGH42AYB	125.0	8	16	23

10 CAPACITY CORRECTION FACTORS FOR VARIOUS PIPE LENGTHS

MODEL	REFRIGERANT PIPING LENGTH (ONE WAY)			
	25 ft	40 ft	55 ft	70 ft
PUGH18AYB	1.0	0.984	0.965	0.954
PUGH24AYB	1.0	0.992	0.984	0.975
PUGH30AYB	1.0	0.996	0.990	0.985
PUGH36AYB	1.0	0.984	0.967	0.950
PUGH42AYB	1.0	0.991	0.982	0.973

11 MICROPROCESSOR CONTROL

1. COOLING/HEATING OPERATION

Outdoor unit operation is activated by delivery of a 12VDC signal from the indoor unit. Cooling only units have 2 low voltage control wires from the indoor unit to the outdoor unit. The functions of these wires are:

- **Wire #1:** Common
- **Wire #2:** Initiates operation of the compressor and outdoor fan when 12VDC is supplied from the indoor unit.
- **Wire #3:** Receives 12VDC from the indoor unit when set to the "Heat Mode".

NOTE: The Reversing Valve is energized during the cool mode (whenever 12VDC is NOT PRESENT) on wire #3, the Reversing Valve is de-energized during the Heat Mode.

2. OUTDOOR ABNORMALITY DETECTION BY INDOOR UNIT (P8 FAULT CODE)

- A. The indoor unit constantly monitors the difference between return air temperature and indoor coil temperature. During a call for cooling, if the indoor coil does not become at least nine degrees colder than the return air temperature after approximately ten minutes of operation, the indoor circuit board will shut down the system. The indoor unit will display the problem code "P8" at the indoor unit remote controller and terminate the 12VDC signal to the outdoor unit.
- B. The "P8" code does not necessarily mean that the outdoor unit has a problem. It simply means that the indoor coil did not become colder or warmer than the return air during a call for cooling or heating.
- C. If a "P8" code is displayed:
 - i. Turn the indoor remote controller off and back on to reset it.
 - ii. Set the remote controller to a "call" for cooling.
 - iii. At the indoor unit 12VDC control terminals, check to see if 12VDC is present on the #1 and #2 wires.
 1. You may encounter a 3-minute delay in cooling before the 12VDC signal is generated or after the 12VDC signal is delivered to the outdoor unit before the compressor contactor is energized.
 - iv. If 12VDC is present and the 3-minute delay has expired, the outdoor unit should be operating. If it is not, the indoor unit is not the source of the problem and the following should be checked:
 1. Check the 12VDC terminals at the outdoor unit for 12VDC. The polarity must be the same as that of the indoor. That is, the control wires must be connected to matching numbered control terminations on the indoor and outdoor units (1 to 1, 2 to 2). If the wires are not connected properly, the unit will not be damaged, but it will not operate.
 - a. If no 12VDC signal is present when 12VDC is available at the indoor unit, check for a break/open in the control wire.
 - b. If 12VDC is present, insure polarity is correct. If polarity is correct and a 12VDC signal is present, check the LED indicators on the outdoor board.
 - i. Is the "Status" LED lit constantly? If so, the outdoor board is in time delay. Wait for it to expire (make sure the 12VDC signal is still available from the indoor unit).
 - ii. Is the "#2" LED lit? This indicates that the board is receiving 12VDC from the indoor unit.

NO LED: Recheck for 12VDC on the control wires, check for correct polarity and check the wires from the terminal block to the board.

LED LIT: The board should be outputting 24 VAC to the compressor contactor and line voltage to the fan (unless in low ambient control). Is the compressor/fan operating?

YES: System is OK

NO: Is the "Status LED" flashing?

NO: Bad outdoor board

YES: 2 Flash sequence indicates that the High Pressure Switch is open. 4 Flash sequence indicates that the Low Pressure Safety Switch is open

3. OUTDOOR BOARD FUNCTIONALITY

- A. **High Pressure Safety Switch (HPSS).** This switch opens at approximately 400 PSIG and closes at approximately 300 PSIG. There is no bypass on this switch. When the switch opens, the control immediately stops the compressor and outdoor fan. When the switch closes, the system can restart if the indoor unit has not entered a P8 fault code. If the switch opens three times within a one-hour period, the outdoor unit operation is "locked out" and must be serviced. Turning line voltage off and back on to the outdoor unit will reset the lockout. The indoor unit must also be reset to clear the fault code. Turning the remote controller off and back on will reset the indoor unit.
- B. **Low Pressure Safety Switch (LPS).** This switch opens at approximately 7 PSI and closes at approximately 22 PSI. The switch is bypassed during the first 3 minutes of cooling operation. If the pressure rises to the "cut in" point, the compressor will restart if the delay has expired and the indoor unit is not in a P8 fault. If the switch opens 3 times within a one-hour period, the outdoor unit will be "locked out" and must be serviced. Turning line voltage off and back on to the outdoor unit will reset the lockout.

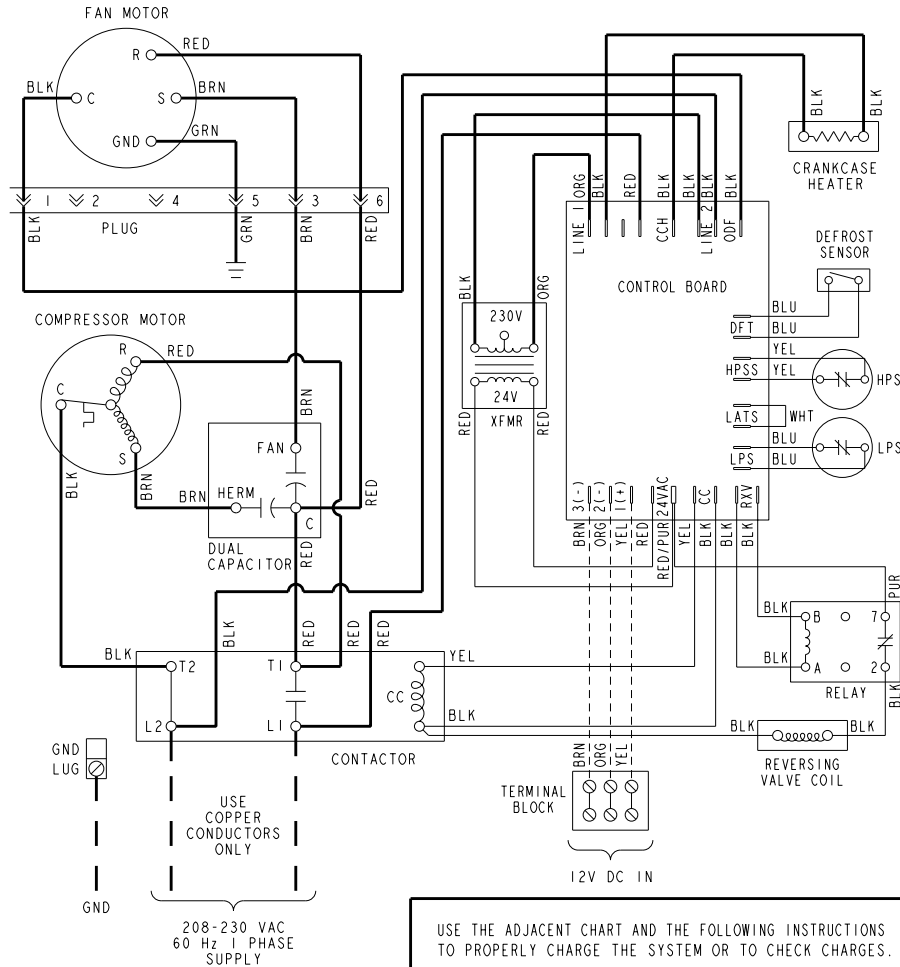
11 MICROPROCESSOR CONTROL

- C. **Low Ambient Temperature Switch (LATS)** - The purpose of this switch is to extend cooling operation in low outdoor temperatures as low as 25°. The outdoor unit uses a high side pressure switch to cycle the fan. When pressure drops to 165 PSI (+/-10), the switch opens and the fan stops. When pressure rises to 300 (+/- 10), the switch closes and the fan restarts. A jumper is factory installed in place of the low ambient pressure switch. This jumper must be removed when a low ambient accessory kit is installed.
- During low ambient cooling operation the indoor unit may initiate an "air defrost" of the indoor coil once during every 16 minutes of continuous cooling operation. This insures that the coil has adequate airflow and should not be considered as a fault.
- D. **Defrost Sensor Switch** - The defrost switch is set to close at 35 degrees (+/-7) and opens at 65 degrees (+/-5). The board is factory set with a 60 minute minimum defrost interval and can be reset to 30 or 90 minutes by moving a jumper. When the defrost sensor closes, the defrost timer begins timing out the compressor run time. Once the timer "times out" (30/60/90 minutes) and the switch is closed the reversing valve is shifted and defrost is accomplished. If the room temperature is satisfied during a defrost cycl, the defrosting will continue until the termination temperature is achieved or 10 minutes has elapsed.
- E. **Crankcase Heater (CCH)** - A crankcase heater is installed into all PUGH heat pump units to protect the compressor. When line voltage is first applied to the outdoor unit, the control will energize the crankcase heater. The control will continue to energize the CCH until the first call for compressor operation. The control never energizes the CCH during compressor operation. The control will energize the CCH thirty minutes after the compressor turns off. It will then cycle the CCH on for 30 minutes and off for 30 minutes repeatedly until the compressor is again turned on.
- F. **Compressor Contactor (CC)** - The compressor contactor is energized with 24VAC when a 12 VDC is input to the outdoor unit on control wires 1 and 2 from the indoor unit. This 12 VDC signal is generated and sent from the indoor unit on all calls for compressor operation.
- G. **Outdoor Fan Motor (ODF)** - The outdoor fan motor typically operates at the same time as the compressor. However, the fan may be off while the compressor is operating during low ambient cooling conditions as described previously.
- H. **Transformer Input (24VAC)** - The secondary side of the transformer supplies 24 volts AC to the circuit board on the "24VAC" terminals. This voltage operates the internal circuits of the board and also provides voltage to the compressor contactor when appropriate. The primary side of the transformer is powered with line voltage from terminals marked "L1" and "L2" on the board.
- I. **Line Voltage** - Line voltage is input and output from the circuit board on the terminals marked "L1" and "L2". There are four terminals marked "L1". These terminals provide "L1" input to the board and "L1" output to the transformer, crankcase heater and the outdoor fan motor.
- There are two terminals marked "L2". One terminal provides "L2" line voltage input to the board. The other provides "L2" output to the transformer.
- J. **Anti-Recycle Delay Timer** - The control provides an "anti-recycle delay" of three minutes in the cooling mode.
- K. **Time Shortening** - Placing the defrost jumper to the "TEST" position shortens timings of the control to the following values.
1. Anti-Recycle - 36 seconds
 2. CCH Cycles - 24 seconds
 3. Compressor Run - 1 second
 4. Low Pressure Bypass - 12 seconds
- L. **Last Fault Memory Recall.** The control maintains a memory of the last fault that occurred. The last fault code can be recalled by moving the defrost jumper to the "TEST" position and observing the "STATUS" LED display. The control stores only the last fault code. The control will reset the fault code memory when the line voltage to the outdoor unit is turned off.
- M. **LED Function.** The board has four LED's which provide the following function:
1. **"STATUS" LED** indicates normal operation or faults as follows:

LED FLASHES	INDICATION OF CONDITION
Off	Normal Operation, no fault, no "call"
Constant on LED	Anti-recycle delay active. If the HPSS or LPS opens, the anti-recycle will activate for 3 minutes before the fault can be displayed.
1 Flash Sequence	Defrost Sensor Closed
2 Flash Sequence	High Pressure Safety Switch Open
3 Flash Sequence	LATS Open
4 Flash Sequence	Low Pressure Safety Switch Open

2. **"CCH" LED** indicates that the crankcase heater is energized.
3. **"2" LED** indicates that the indoor unit is calling for compressor operation, 12VDC is present on control wire #2.

12 ELECTRICAL



———— HIGH VOLTAGE FACTORY WIRING
 - - - - - LOW VOLTAGE FACTORY WIRING
 12V DC FACTORY WIRING
 - . - . - LINE VOLTAGE FIELD WIRING

DANGER - SHOCK HAZARD

TURN OFF ELECTRICAL POWER BEFORE SERVICING TO PREVENT POSSIBLE DAMAGE TO THE EQUIPMENT AND POSSIBLE PERSONAL INJURY.

CAUTION

TO PREVENT ELECTRICAL SHOCK OPEN REMOTE DISCONNECT SO ELECTRICAL SUPPLY TO AIR CONDITIONER IS SHUT OFF.

NOTES:

1. WIRING MUST CONFORM TO NATIONAL AND LOCAL CODES.
2. IF ANY OF THE ORIGINAL WIRES SUPPLIED WITH THIS UNIT MUST BE REPLACED, IT MUST BE REPLACED WITH TYPE 105°C THERMOPLASTIC OR ITS EQUIVALENT.
3. WHERE POWER SUPPLY HAS ONE (1) 240V CONDUCTOR AND ONE (1) NEUTRAL CONDUCTOR, CONNECT L2 OF CONTACTOR TO NEUTRAL.

CHARGING PROCEDURE

1. OPERATE SYSTEM FOR SEVERAL MINUTES UNTIL TEMP AND PRESSURE STABILIZE.
2. MEASURE OUTDOOR (CONDENSOR INLET) AIR DRY-BULB TEMPERATURE (°F) WITH SERVICE THERMOMETER APPROX 6" FROM COIL SURFACE.
3. ATTACH A SERVICE GAUGE TO SUCTION SERVICE PORT AND MEASURE SUCTION PRESSURE.
4. ATTACH A SERVICE THERMOMETER TO UNIT SUCTION LINE NEAR SERVICE VALVE AND INSULATE. MEASURE SUCTION LINE TEMP (°F).
5. REFER TO CHARGING CHART. FIND OUTDOOR AIR TEMPERATURE AND EVAPORATOR SUCTION PRESSURE. THEN FOLLOW COLUMNS TO READ SUCTION LINE TEMP.
6. COMPARE SUCTION LINE TEMP MEASURED IN STEP 4 WITH CHART SUCTION TEMP. IF UNIT SUCTION TEMP IS HIGHER THAN CHART TEMP, ADD HCFC-22 CHARGE UNTIL SUCTION TEMP MATCHES CHART SUCTION TEMP.
7. ALLOW AT LEAST 10 MINUTES OF SYSTEM OPERATION AFTER EACH CHARGE ADJUSTMENT FOR SYSTEM TO STABILIZE.
8. REMOVE SERVICE GAUGES AND THERMOMETERS.

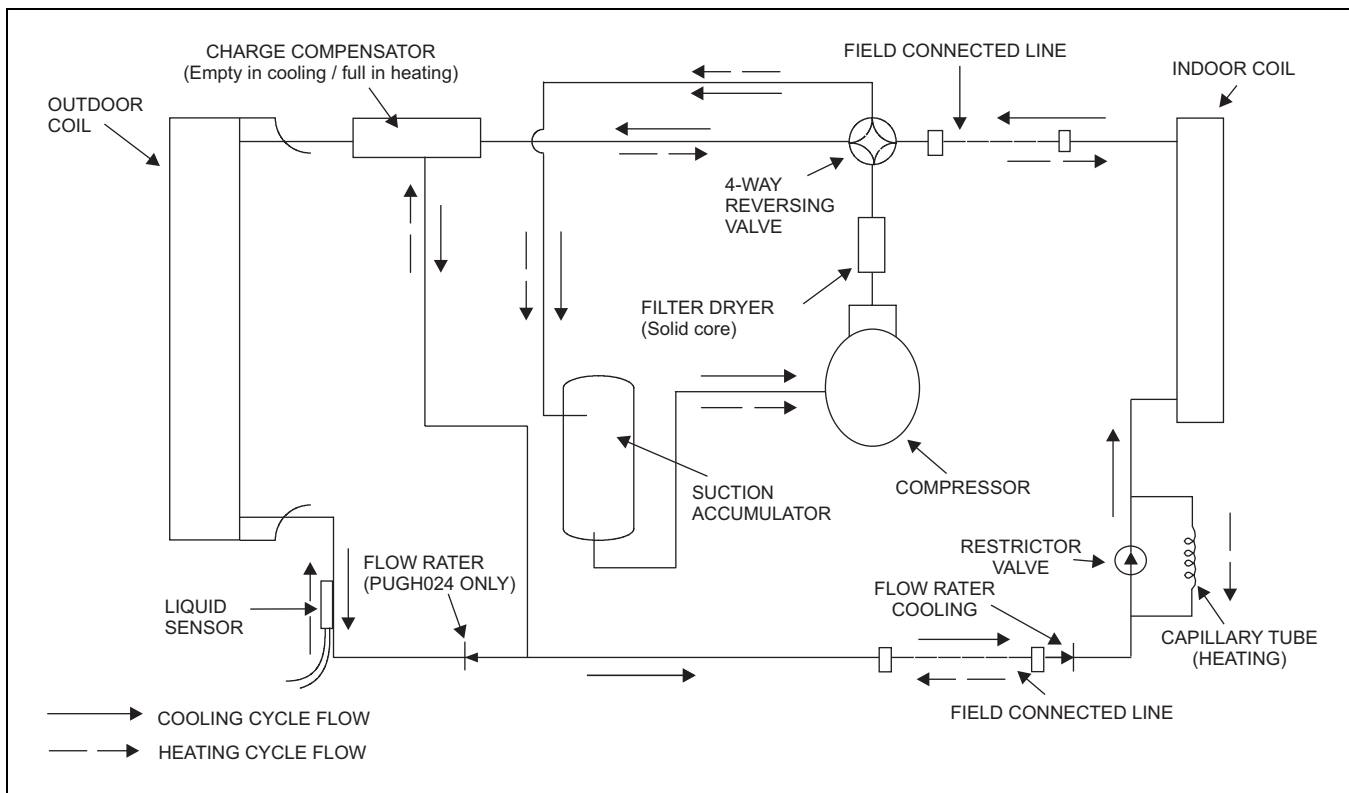
035-18739-001 REV.A (0903)

13 REFRIGERANT SYSTEM

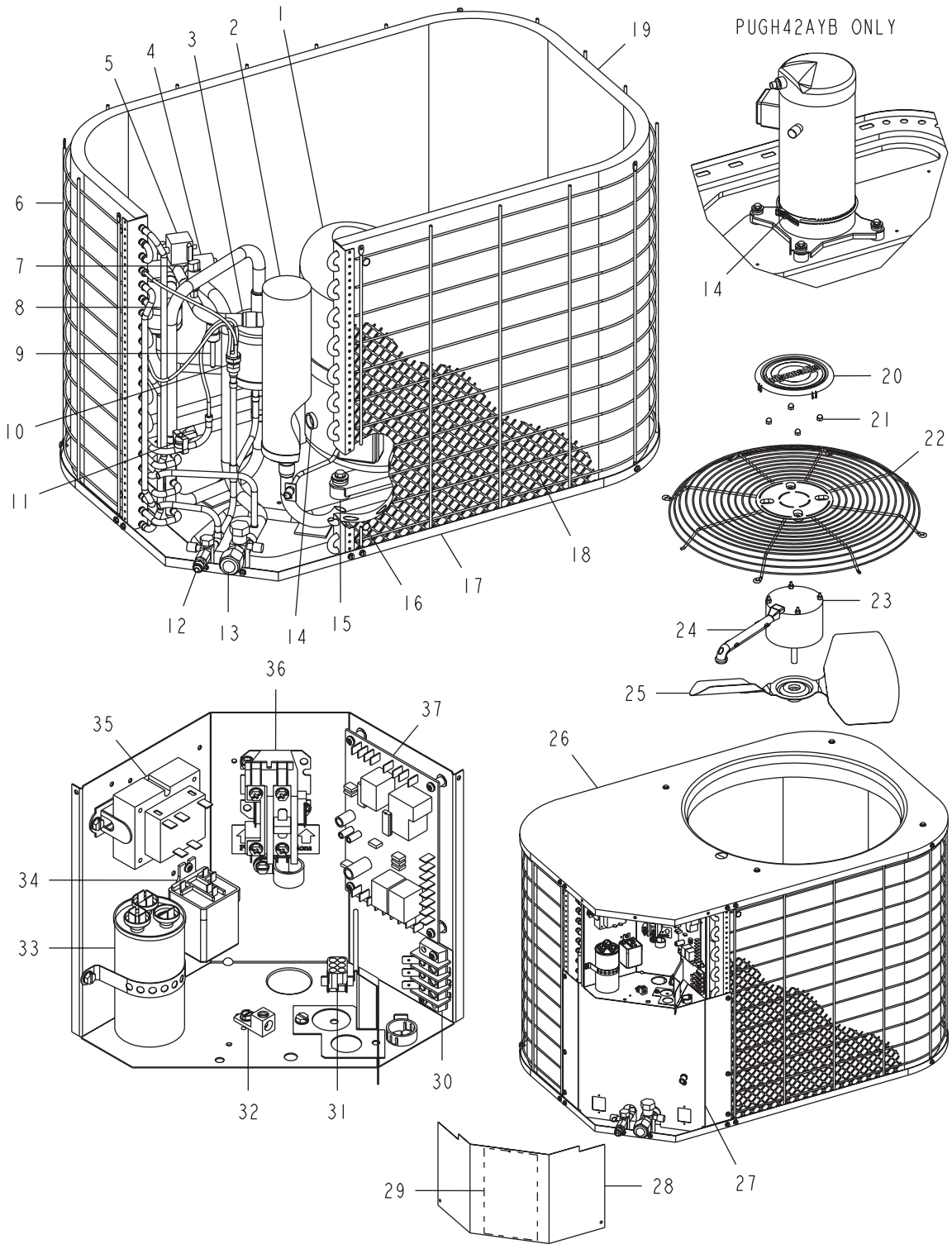
SERVICE PORTS

There are two service ports available to service technicians. One port is located at each of the two base valves.

- A. **Liquid Line Base Valve Service Port.** This port is used to evacuate the refrigerant line set when the ball valve is in the closed position. It may also be used to measure the liquid line pressure or, more accurately, the “saturated line” pressure during normal operation.
 1. During cooling operation this service port is downstream of the metering orifice which is installed inside of the liquid line base valve body. While in the cooling mode this pressure is typically 25 to 40 PSI above that of the suction base valve pressure (usually 85 to 110 PSI).
 2. During heating operation this pressure continues to be downstream of the capillary tube which is now metering refrigerant at the outlet of the indoor unit.
- B. **Suction Base Valve Service Port.** This port is also used to evacuate the indoor unit and line set during installation. The ball valve must be closed to evacuate the line set and indoor unit. During normal cooling mode operation this pressure port indicates evaporator pressure (minus line set pressure drop). Typical cooling mode pressure readings here are in the range of 55 to 80 PSI during summer operation.
- C. **Both refrigerant lines must be insulated because the “cooling side” metering device is located in the outdoor unit.** Failure to insulate the liquid line, or more accurately the “saturation line”, will result in condensate dripping from the line and poor cooling performance.
- D. **Metering Devices.** A fixed orifice that is located in the liquid base valve meters refrigerant in the cooling mode. If a restriction or a compressor failure occurs this orifice can be easily accessed and cleaned after refrigerant is recovered. It is important to use a back-up wrench on the liquid line base valve connections when accessing the orifice. Failure to do so could loosen the base valve connections and cause a refrigerant leak.



14 PARTS BREAKDOWN



14 PARTS BREAKDOWN**MODELS 18, 24, AND 30**

FIG	ITEM	DESCRIPTION	PUGH018AYB	PUGH024AYB	PUGH030AYB	<
1	1	Compressor, Hermetic	015-02901-004	015-03588-000	015-03424-001	
1	2	Accumulator	026-35441-000	026-35441-000	026-35435-000	
1	3	Compensator Tank	026-35433-000	026-35433-000	026-35433-000	
1	4	Valve, Reversing	025-31931-000	025-31931-000	025-31931-000	
1	5	Coil, Solenoid	1456-9761	1456-9761	1456-9761	
1	6	Guard, Coil	373-20091-008	373-20091-009	373-20091-009	
1	7	Control, Low Pressure (7 psi- open / 22 psi close)	025-38610-000	025-38610-000	025-38610-000	
1	8	Filter Drier	1458-0011	1458-0011	1458-0011	
1	9	Control, High Pressure (400 psi- open / 300 psi close)	025-33305-048	025-33305-048	025-33305-048	
1	10	Distributor	022-09058-000	022-09059-000	022-09010-448	
1	11	Sensor, Coil (Liquid Replacement)	025-31994-000	025-31994-000	025-31994-000	
1	12	Valve, Liquid (3/8" FL x 3/8" SW) Valve, Liquid (1/2" FL x 3/8" SW)	022-09055-000 ---	022-09054-000 ---	---	022-09056-000
1	13	Valve, Suction (5/8" FL x 3/4" SW) Valve, Suction (3/4" FL x 3/4" SW)	022-09048-625 ---	022-09048-625 ---	---	022-09049-750
1	14	Crankcase Heater	1450-9511	---	---	
1	15	Isolator, Compressor (Pkg. of 4)	9435-1081	9435-1081	9435-1081	
1	16	Fastener, Push-in (4 Req'd)	021-18381-000	021-18381-000	021-18381-000	
1	17	Base, Pan	2218-1011	2218-1011	2218-1011	
1	18	Mesh, Coil Guard Plastic	028-14726-000	028-14727-000	028-14727-000	
1	19	Coil, Condenser	373-19800-011	373-19800-013	373-19800-013	
1	20	Hubcap	026-39292-000	026-39292-000	026-39292-000	
1	21	Motor Mount Kit (Acorn Nuts)	363-90117-700	363-90117-700	363-90117-700	
1	22	Guard, Fan	026-35511-018	026-35511-018	026-35511-018	
1	23	Motor, Fan	024-26067-010	024-26067-010	024-26020-000	
1	24	Wireway, (Electric Channel)	028-13215-000	028-13215-000	028-13215-000	
1	25	Blade, Fan (18")	026-34091-000	026-34092-000	026-34092-000	
1	26	Panel, Top	2218-1021/A	2218-1021/A	2218-1021/A	
1	27	Plate, Block-Off	2236-1081/B	2242-1081/B	2242-1081/B	
1	28	Cover, Electric Box	2218-1151/A	2218-1151/A	2218-1151/A	
1	29	Diagram, Wiring	035-18739-001	035-18739-001	035-18739-001	
1	30	Block, Terminal	025-38589-003	025-38589-003	025-38589-003	
1	31	Electrical Plug	025-33306-006	025-33306-006	025-33306-006	
1	32	Ground Lug	025-21798-000	025-21798-000	025-21798-000	
1	33	Capacitor, Run (30/5MFD) [RC] Capacitor, Run (35/5MFD) [RC] Capacitor, Run (45/5MFD) [RC]	024-24778-000 ---	---	---	024-25895-000
1	34	Relay	024-24116-000	024-24116-000	024-24116-000	
1	35	Transformer (40VA)	025-18452-000	025-18452-000	025-18452-000	
1	36	Contact, Electrical (30 amp) [M]	024-27531-000	024-27531-000	024-27531-000	
1	37	Control, Defrost	031-01976-000	031-01976-000	031-01976-000	
*	38	Harness, Compressor	025-31884-000	025-31884-000	025-31884-000	
*	39	Nameplate, Bezel	035-13508-000	035-13508-000	035-13508-000	
*	40	Harness, Wiring (3 Wire)t	373-20055-006	373-20055-006	373-20055-006	
*	41	Harness, Wiring (8 Wire)	373-20055-007	373-20055-007	373-20055-007	

NOTE
:

*Not Shown

New replacement parts shown in **bold** face type at the first printing of parts list dated 4/03.Major components and suggested stocking items are shown with shaded item number.

"←" Across from row indicates a change in that row.

--- Not applicable to specified model.


14 PARTS BREAKDOWN

MODELS 36 AND 42

FIG	ITEM	DESCRIPTION	PUGH036AYB	PUGH042AYB	<
1	1	Compressor, Hermetic	015-03425-001	015-02773-004	
1	2	Accumulator	026-35435-000	026-35435-000	
1	3	Compensator Tank	026-35433-000	026-35434-000	
1	4	Valve, Reversing	025-31922-000	025-31929-000	
1	5	Coil, Solenoid	1456-9761	1456-9761	
1	6	Guard, Coil	373-20091-010	373-20091-010	
1	7	Control, Low Pressure (7 psi- open / 22 psi close)	025-38610-000	025-38610-000	
1	8	Filter Drier	6536-3341	6536-3341	
1	9	Control, High Pressure (400 psi- open / 300 psi close)	025-33305-048	025-33305-048	
1	10	Distributor	022-09060-000	022-09059-000	
1	11	Sensor, Coil (Liquid Replacement)	025-31994-000	025-31994-000	
1	12	Valve, Liquid (1/2" FL x 3/8" SW)	022-09063-000	022-09057-000	
1	13	Valve, Suction (3/4" FL x 3/4" SW) Valve, Suction (7/8" FL x 3/4" SW)	022-09049-750 ---	--- 022-09052-875	
1	14	Crankcase Heater	---	025-38695-000	
1	15	Isolator, Compressor (Pkg. of 4)	9435-1081	9435-1081	
1	16	Fastener, Push-in (4 Req'd)	021-18381-000	021-18381-000	
1	17	Base, Pan	2260-1011	2260-1011	
1	18	Mesh, Coil Guard Plastic	028-14728-000	028-14731-000	
1	19	Coil, Condenser	373-20075-205	373-20075-204	
1	20	Hubcap	026-39292-000	026-39292-000	
1	21	Motor Mount Kit (Acorn Nuts)	363-90117-700	363-90117-700	
1	22	Guard, Fan	026-35511-022	026-35511-022	
1	23	Motor, Fan	024-27596-000	024-27596-000	
1	24	Wireway, (Electric Channel)	028-13216-000	028-13216-000	
1	25	Blade, Fan (18")	026-34593-000	026-34593-000	
1	26	Panel, Top	2260-1021/A	2260-1021/A	
1	27	Plate, Block-Off	2260-1081/B	2260-1081/B	
1	28	Cover, Electric Box	2218-1151/A	2218-1151/A	
1	29	Diagram, Wiring	035-18739-001	035-18739-001	
1	30	Block, Terminal	025-38589-003	025-38589-003	
1	31	Electrical Plug	025-33306-006	025-33306-006	
1	32	Ground Lug	025-21798-000	025-21798-000	
1	33	Capacitor, Run (45/5MFD) [RC] Capacitor, Run (60/5MFD) [RC]	024-25895-000 ---	--- 024-25033-000	
1	34	Relay	024-24116-000	024-24116-000	
1	35	Transformer (40VA)	025-18452-000	025-18452-000	
1	36	Contact, Electrical (30 amp) [M]	024-27531-000	024-27531-000	
1	37	Control, Defrost	031-01976-000	031-01976-000	
*	38	Harness, Compressor	025-31884-000	025-31884-000	
*	39	Nameplate, Bezel	035-13508-000	035-13508-000	
*	40	Harness, Wiring (3 Wire)	373-20055-006	373-20055-006	
*	41	Harness, Wiring (8 Wire)	373-20055-007	373-20055-007	

NOTE
: *Not Shown

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"<" Across from row indicates a change in that row.

--- Not applicable to specified model.

TO ORDER AUTHORIZED FACTORY REPLACEMENT PARTS - Contact your local Mitsubishi Electric distributor. or visit our website at www.mrslim.com for a Distributor and Dealer listing.

15 **NOTES**



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